

S/N 09/746,739

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Matthew B. Dubin et al.

Examiner: Prasad Akkapeddi

Serial No.: 09/746,739

Group Art Unit: 2871

Filed: December 22, 2000

Docket: H25994-59074

Title: SEAMLESS TILED DISPLAY SYSTEM

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The applicant requests review of the final rejection in the above-identified application.

No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated below:

I. Steffensmeier and Schwarzenberger do not teach or suggest every element of the claims

FIG. 1 and the specification of Steffensmeier clearly show that reference numbers 10a, 10b, 10c refer to projection channels. In addition, Applicant notes that the Abstract of Steffensmeier states "each projection channel projects a substantially mutually exclusive portion of an image onto a display area." Therefore, the Abstract of Steffensmeier makes it clear that each projection channel 10a, 10b, 10c projects one portion of an image onto the display.

Applicant notes that there is no teaching or suggestion in Steffensmeier that the projection channels 10a, 10b, 10c are subdivided. Applicant further notes that there is similarly no teaching or suggestion in Schwarzenberger that the display devices 2, 3 are subdivided. Therefore, Applicant respectfully submits that Steffensmeier and/or Schwarzenberger do not teach or suggest:

"each display device is subdivided into a plurality of sections with each section separately configured to display a sectional image, each display device including a dead-band region between each pair of adjacent sections" in combination with "wherein the lens assemblies provide magnification to merge adjacent projected sectional images together to eliminate the dead-band regions from the tiled image" as recited in claim 1;

"subdividing each of the display devices into a plurality of separate display sections such that there is a dead-band region between each pair of adjacent

sections on each display device” in combination with “wherein projecting the sectional image displayed on each section includes . . . magnifying adjacent sectional images on either side of the dead-band regions to eliminate the dead-band regions from the tiled image” as recited in claim 28; or

“means for subdividing each display device into a plurality of separate display sections such that each display device includes a dead-band region between each pair of adjacent sections” in combination with “wherein the projecting means includes means for magnifying adjacent sectional images to merge adjacent projected sectional images together to eliminate the dead-band regions from the tiled image” as recited in claim 37.

The Examiner acknowledges at page 3 of the Final Office Action that “Steffensmeier does not disclose at least one lens assembly being configured to provide a shift so that respective projected sectional image on the screen is shifted sideways with respect to an axis normal to the corresponding section image.” The Examiner attempts to overcome the acknowledged deficiencies of Steffensmeier by combining Steffensmeier with Schwarzenberger. The Examiner states at page 3 of the Office Action that “Schwarzenberger in disclosing an apparatus for displaying an image disclose that the arrays shift the given parts of the display area to form a viewable image of the whole display area in which gaps between the neighboring parts of the image are less visible (abstract).”

Applicant notes that FIG. 1 of Schwarzenberger illustrates that the display units 2, 3 are not subdivided, and that the unsubdivided image is shifted. Applicant notes that the rejection and the Schwarzenberger reference do not describe shifting sectional images (i.e., images that are projected from subdivided sections of a display device). In addition, Applicant respectfully notes that the images on the display devices 2, 3 in Schwarzenberger do not include gaps such that there is no teaching or suggestion in Schwarzenberger as to shifting the image to eliminate gaps.

Therefore, Applicant respectfully submits that Steffensmeier and/or Schwarzenberger do not teach or suggest:

“at least one lens assembly being configured to provide a shift so the respective projected sectional image on the screen is shifted sideways with respect to an axis normal to the corresponding sectional image” as recited in claim 1;

“the projecting step includes shifting at least one of the projected sectional images sideways on the screen with respect to an axis normal to the corresponding sectional image” as recited in claim 28; or

“the projecting means including means for shifting at least one of the projected sectional images sideways on the screen with respect to an axis normal to the corresponding sectional image on the display device” as recited in claim 37.

As part of maintaining the rejection in the Advisory Action mailed March 29, 2006, the Examiner states “Examiner submits that Applicant has misinterpreted Examiner’s argument. Each display device (i.e., “a” section) is comprised of a plurality of subsection (ie. 10a, 12a, 14a) which together comprises that particular display device.” The Examiner may appear to be stating that each display device in Steffensmeier is formed of sections with one display device including sections 10a, 12a, 14a and another display device including sections 10c, 12c, 14c.

Applicant notes that if the Examiner is characterizing the system disclosed in Steffensmeier in this manner, then the characterization still does not include all of the limitations of the claims. As an example, if one of the display devices is formed of sections 10a, 12a, 14a, then there is no dead band regions between the sections 10a, 12a, 14a. In addition, the sections are not magnified to merge adjacent projected sectional images together to eliminate the dead-band regions from the tiled image.

Applicant also respectfully traverses this potential type of characterization because each of the projection channels 10a, 10b, 10c in Steffensmeier is more appropriately considered a display device. Column 2, line 65, through column 3, line 3, of Steffensmeier states that each of the projection channels 10a, 10b, 10c includes a light transmission module 12a, 12b, 12c and a variable-power lens assembly 14a, 14b, 14c. In addition, column, 3, lines 30-36 of Steffensmeier states that each projection channel 10a, 10b, 10c projects different portions 30a, 30b, 30c of an image onto a screen S (i.e., the projection channels 10a, 10b, 10c are display devices). Applicant again notes that the projection channels 10a, 10b, 10c in Steffensmeier are not separated into sections with dead-band regions between the sections.

II. There is no motivation or suggestion to combine Steffensmeier and Schwarzenberger

The Final Office Action states at page 3 that “[i]t would be obvious to one having ordinary skill in the art at the time the invention was made to adapt the specific configuration disclosed by Schwarzenberger to the device disclosed by Steffensmeier so that the gaps between

the neighboring parts of the image are less visible than the gaps between the neighboring parts of the display area (abstract).” Applicant respectfully traverses this assertion. Applicant notes that the statement is not derived from the references. Applicant further notes that the statement does not provide a suggestion to combine Schwarzenberger with Steffensmeier. Applicant notes that the only teach relating to (i) subdividing each display device into separate display sections; and (ii) shifting sectional images from subdivided sections of a display device is found in Applicant’s specification and claims.

As part of maintaining the rejection in the Advisory Action mailed March 29, 2006, the Examiner also states “Furthermore, in response to Applicant’s argument that since Steffensmeier does not have any gaps, there would be no motivation to shift the image to eliminate the gap, Examiner states that simply because the drawings do not show gaps, does not mean that gaps do not exist or can not exist in the invention.” Applicant respectfully traverses this assertion and notes that the statement is not derived from the references. Applicant respectfully submits that if neither of the cited references describe shifting sectional images (i.e., images that are projected from subdivided sections of a display device), then the combination of references does not teach or suggest (i) subdividing each display device into separate display sections; and (ii) shifting sectional images from subdivided sections of a display device is found in Applicant’s specification and claims.

Reconsideration and allowance of all pending claims are respectfully requested.

CONCLUSION

The applicant respectfully submits that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at (262) 646-7009 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 12th day of April, 2006.

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